



Is Mandate Nurse-to-Patient Ratio the right solution?

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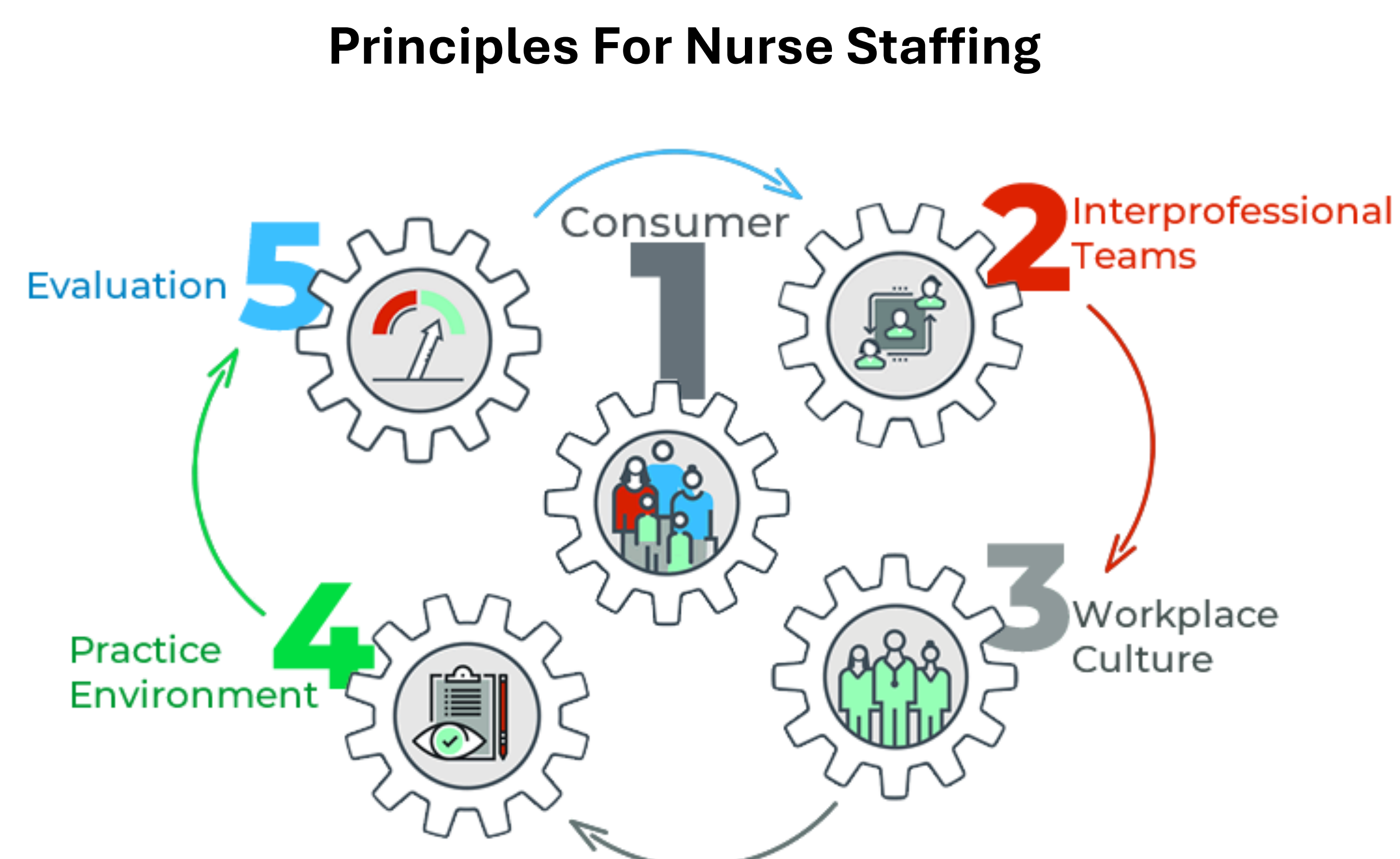
Problem

- The U.S. nursing shortage presents significant challenges to patient safety, quality of care, and health outcomes.
- Inadequate nurse staffing is linked to compromised care, adverse events, and negative patient outcomes (Dierkes et al., 2022).

Objectives

- Review literature on evidence-based nursing staffing practices.
- Examine if the nursing staffing policies impact patient outcomes and hospital expenses.

Conceptual Framework



Methods

Kruskal Wallis test was conducted to compare:

- Four staffing policy categories: mandated disclosure of staffing levels, mandated nurse-to-patient ratios, staffing committee, and no policy.
- Six key metrics: inpatient mortality rate by injuries and surgeries, length of stay, readmission rate, hospital-adjusted expenses per inpatient day, and nurse-to-state population ratio.

Results

Comparison of the Key Metrics across Four Nursing Staffing Policy Categories

	Staffing Policy				p-value*
	Mandated Disclosure of Staffing Levels (N=3)	Mandated Nurse-To-Patient Ratios or Standards (N=2)	None (N=37)	Staffing Committee (N=9)	
	Median	Median	Median	Median	
Mortality Rate by Injuries (2020)	2.90	2.68	3.00	2.81	0.308
Mortality by Surgeries (2020)	2.18	2.14	2.13	2.17	0.982
Length of Stay (days, 2023)	4.8	4.9	4.4	4.6	0.579
Nurse to State Population Ratio (per 1000) (2022)	10.23	10.91	9.68	9.46	0.887
Readmission Rate (2024)	15.05%	15.03%	14.41%	14.60%	0.024
Hospital-adjusted Expenses per inpatient day (2022)	3102	3933	2677	3266	0.005

* Independent-Samples Kruskal-Wallis Test

Bold P-value <0.05 indicates significance.

Red indicates the highest number. Blue indicates the lowest number.

Conclusion

- States with mandated Nurse-to-Patient ratios have the highest length of stay, nurse-to-state population ratio, and hospital-adjusted expenses per inpatient day but the lowest mortality rate by injuries.
- Further study is needed to support the mandated nurse-to-patient ratio policy due to unequal and small group sizes.

Recommendations

- An additional patient per nurse increases 30-day mortality by 9%, readmission by 7%, length of stay by 10%, and ICU admission by 12% (Dierkes et al., 2022).
- Reduced allied health staffing correlates with higher mortality rates (Rubbo et al., 2023).
- Senior RNs impact patient outcomes 2.2 times more than less experienced RNs (Zaranko et al., 2022).
- The team nursing model is associated with higher mortality, increased readmissions, longer stays, and lower patient satisfaction (Laster et al., 2024).
- A mandated 4:1 med/surg patient-to-nurse ratio could have saved 4,370 lives and \$720 million over two years (Laster et al., 2021).